BY ORDER OF THE COMMANDER 433D AIRLIFT WING

433D AIRLIFT WING INSTRUCTION 21-165

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Maintenance

STANDARDIZED CORE SCHEDULING PRACTICES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements aircraft scheduling policies in Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, and extends the guidance in Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, and Air Force Reserve Instruction (AFRCI) 21-165, *Aircraft Flying and Maintenance Scheduling Procedures*. It establishes policy and assigns responsibility for 433d Operations Group (433 OG) and 433d Maintenance Group (433 MXG) commanders to develop and execute aircraft flying and maintenance programs and establishes procedures to standardize core scheduling practices across the wing. This instruction applies the 433d Maintenance Group (MXG): Quality Assurance (QA); Plans, Scheduling and Documentation Office (PS&D), Maintenance Data Systems Analysis (MDSA), Maintenance Operations Center (MOC), 433d Aircraft Maintenance Squadron (AMXS), and 433d Maintenance Squadron (MXS); the 433d Operations Group (OG): 433d Operations Support Squadron (OSS) Current Operations (433 OSS/OSO), 433d Command Post (CP), and Aviation Resource Management (ARM); the 356th Airlift Squadron (AS): Aircrew and Aviation Resource Management (SARM); the 68th Airlift Squadron: Aircrew and SARM; and 433d Logistics Readiness Squadron (LRS) Decentralized Material Support (DMS). Ensure that all records

created as a result of processes prescribed in this publication are maintained In accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command.

SUMMARY OF CHANGES

This new publication incorporates 433d Airlift Wing Instruction (AWI) 21-101, *Aircrew Debriefing Procedures*, 433 AWI 21-106, *Aircraft Flying Hour Accounting*, 433 MXG Operating Instruction (OI) 21-116, *Aircraft Records Reviews*, MXGOI 21-124, *Hangar Queen Status and Reporting*, 433 MXGOI 21-128, *Manual Updates for Maintenance Information Systems (MIS)*, 433 MXGOI 21-133, *C5 Configuration Management – Serially Controlled and Time Change Items*, and MXGOI 21-134, *Publishing Consolidated Flying and Maintenance Schedules*.

Chapter 1

FLYING AND MAINTENANCE PLANNING, EXECUTION & RECORDING

1.1. Annual Planning. Discussion and development of all published schedules is incorporated into the weekly Operations and Maintenance Scheduling Meetings to the extent possible. PS&D will publish all signed plans (annual, quarterly, monthly and weekly) on the SharePoint for maximum distribution. Digital signature for all plans is allowed where possible and practical.

1.1.1. Air Force Reserve Command (AFRC) distributes annual flying hours in early August. Scheduling agencies will work together to adjust the program to realistic goals based on scheduled maintenance requirements, maintenance capability projections, known contingencies/exercises, and historical data.

1.1.2. OSS Scheduling will translate the annual flying hour allocation into a flying hour plan broken into monthly requirements.

1.1.3. PS&D will compile the OSS plan and the Maintenance Capability Study (commissioned in June) and all known requirements into a draft annual plan. Route the draft plan and an AF 1768, *Staff Summary Sheet*, (SSS) to all affected agencies (at a minimum, include maintenance supervision, 433 LRS supply, 802 LRS supply, 802 Fuels, Airfield Management, and munitions).

1.1.4. The finalized plan will be signed by both Group Commanders and the Wing Commander prior to forwarding to HQ AFRC/A4MZM/A3TF. See AFRCI 21-165 for further guidance.

1.2. Quarterly Planning. The Wing Operational Plan (WOP) (all known operational requirements) is published by OSS and made available on the server. PS&D will use the WOP and all known maintenance requirements as the basis for developing published quarterly plans. Include all requirements as outlined in AFI 21-101.

1.3. Monthly Planning. PS&D will publish monthly plans based on published WOPs and all known maintenance requirements using guidance prescribed in AFI 21-101. The following activities must provide the next month's data prior to the third weekly scheduling meeting of the current month:

1.3.1. Engine Management (EM) will provide a listing of all known engine Special Inspection (SI), Time Change Item (TCI), and Time Compliance Technical Order (TCTO) requirements for the upcoming month. Also coordinate with Propulsion Flight Chief to obtain a 6 month engine forecast and engine TCTO status report.

1.3.2. Aerospace Ground Equipment (AGE) will provide an inspection schedule for the upcoming month. Also provide updated AGE TCTO, powered and non-powered AGE, and AGE Mission Capability status reports.

1.3.3. PS&D will pull WOPs and flying hour data from the server to obtain operational requirements.

1.4. Weekly Planning.

1.4.1. The weekly schedule is the final refinement to the monthly plan and results in a draft of the Weekly Flying and Maintenance Plan. The OSS/PS&D weekly scheduling meeting takes place to refine and draft the next week's schedule. At a minimum, the agencies in attendance will be: 433 OSS/OSO, 68 Airlift Squadron (AS), 356 AS, 433 AMXS Production Supervisor (Pro-Super), 433 MXS, 433 PS&D.

1.4.2. PS&D will compile requirements from the Tuesday meeting into a final paper copy for the Group CCs and Wing CC to review and sign at the Wednesday stand up. Alternatively, the plan may be routed and signed digitally. Once signed, all changes to the published schedule will require a coordinated AF Form 2407, *Weekly/Daily Flying Schedule Coordination*. The following activities must provide data as listed below Not Later Than (NLT) two days prior to the weekly scheduling meeting:

1.4.2.1. EM will provide a listing of all known engine SI, TCI, and TCTO requirements for the upcoming week.

1.4.2.2. AGE will provide a listing of all known AGE SI, TCTO and Periodic Inspection (PE) requirements for the upcoming week.

1.4.2.3. QA will provide a listing of all new and revised publications from the past week. Include any upcoming annual inspection requirements.

1.4.3. At the weekly scheduling meeting:

1.4.3.1. PS&D will use the Wing Operational Plan (WOP) to obtain the upcoming week's operational requirements.

1.4.3.2. AMXS Pro-super will provide PS&D with the aircraft serial numbers committed to the upcoming week's flying. Also provide any ground training aircraft to be scheduled.

1.4.3.3. AMXS and MXS Pro-Supers and/or Supervision will finalize which delayed discrepancies and workable TCTOs are to be worked the following week.

1.5. AF 2407 Changes to the Published Flying Schedule.

1.5.1. Pen and ink changes may be made from the time that the schedule is signed up until Friday 1600 (Sunday 1600 on unit training assembly weekends) without incurring a deviation.

1.5.2. OSS personnel, Pro-Supers and personnel designated in writing by the Group Commanders may initiate AF 2407 changes. MXG schedulers may sign AF Forms 2407 on behalf of Pro-Supers after receiving verbal approval via telephone or radio. Changes that add sorties must be approved by the Group Commanders or designated representatives.

1.5.3. The AF 2407 will be used to document deviations up until crew show. Crew show designates the start of mission execution. See AFRCI 21-165 and AFI 21-101 for further AF 2407 instructions.

1.6. Mission Launch Sequence of Events (SOE).

1.6.1. All mission support and preflight activities will be documented on the SOE. Deviation causes will be clearly identified on the SOE.

1.6.2. Deviations incurred during execution will be documented by the MOC on the SOE.

1.6.3. MOC will distribute completed SOEs to applicable agencies.

1.7. Debriefing.

1.7.1. Debrief is conducted at the termination of each sortie/mission or when a sortie/mission is aborted. Aircraft scheduled for turn-around sortie/mission need not be debriefed if returned in landing status Code 1 or 2. However, debriefing is required, regardless of landing status, after the last flight of the day for each aircrew. For Engine Run Crew Changes (ERCC's), the departing aircrew will turn in Air Force Technical Order (AFTO) Form 781, (ARMS) Aircrew/Mission Flight Data Document, and AF 4097, *Aircraft Identification* documents to the 433d Command Post.

1.7.2. Aircraft debrief will be conducted by 433d Maintenance Group/Maintenance Operations Center (MOC) personnel and the Aircraft Maintenance Squadron (AMXS) Production Superintendent and if applicable the Maintenance Squadron (MXS) Production Superintendent, Flightline Expediter, or qualified designated representative. The designated debriefing location will on the flight line in front of the aircraft, inside debrief vehicle.

1.7.3. For aircraft returning during non-duty hours, the aircrew will turn in Air Force Technical Order (AFTO) Form 781, (ARMS) Aircrew/Mission Flight Data Document, and AF 4097, *Aircraft Identification* documents and Malfunction Detection, Analysis, and Recording Equipment (MADAR) PC III cards to the Command Post. Debrief personnel will retrieve documents the next duty day and review and load all discrepancies in the MIS data base, and if necessary call the aircrew for specific discrepancy information.

1.7.4. Personnel assigned as debriefers will have a thorough knowledge of C-5A aircraft systems and possess a 5-level or higher primary Air Force Specialty Code (AFSC)-2A5X1.

1.7.5. Debrief Responsibilities.

1.7.5.1. Aircraft Commander (AC)/Aircrew.

1.7.5.1.1. 30 minutes prior to landing, call the CP (433 AW/CP), to furnish advance aircraft status information and Estimated Time of Arrival (ETA). Use the standard maintenance codes in Table 1.1 to report landing status.

1.7.5.1.2. Ensure that AF 664, *Aircraft Fuels Documentation Log* envelope is removed from the 781 forms binder and delivered to designated office of primary responsibility after debrief.

1.7.5.1.3. AFTO 781A debrief discrepancies will be annotated as mission essential or mission capable.

1.7.5.1.4. When the debriefing is completed, aircrew will review and furnish AFTO Form 781 ARMS Aircrew/Mission Flight data document to the maintenance debriefing team chief, sign Air Mobility Command (AMC) 278, *Debriefing and Recovery Preplan* and ensure accuracy AF 4097 Aircraft Identification and AFTO FORM 781 H Aerospace vehicle Flight Status and Maintenance.

1.7.5.2. Command Post (CP).

1.7.5.2.1. Notify MOC of Landing Status code; if aircraft returns CODE 2 or 3, specify discrepancy causing the condition.

1.7.5.2.2. Inform MOC of aircraft status, ETA, and major discrepancies and request a parking spot.

1.7.5.2.3. Inform AC of parking spot.

1.7.5.2.4. Notify MOC if aircrews turned in any aircraft maintenance forms during non-duty hours.

Table 1.1. Standard Landing Status Notification Codes.

RULE	A Use	B When
1	CODE 0	Ground abort.
2	CODE 1	Aircraft is mission capable; no additional discrepancies.
3	CODE 2	Aircraft or system has minor discrepancies, but is capable of further mission assignment within normal turnaround times.
4	CODE 3	Aircraft or system has major discrepancies in mission essential equipment that requires extensive repair or replacement, prior to further mission assignment.
5	CODE 4	Aircraft or system has suspected or known radiological, nuclear, biological, or chemical contamination.
6	CODE 5	Aircraft or system has suspected or known battle damage

1.7.5.3. Maintenance Operations Center (MOC).

1.7.5.3.1. Conduct aircrew debrief in front of aircraft inside debrief vehicle. At a minimum AMXS pro-super, MXS pro-super, required specialist, aircraft commander (pilot), flight engineer and other crewmembers as required will attend the debrief.

1.7.5.3.2. Be responsible for the debriefing of the aircrew on all discrepancies on the AFTO 781A.

1.7.5.3.3. Query the aircrew to ensure that all symptoms of a malfunction that could lead to the proper diagnosis of the fault are known and recorded on the AMC 278. AFI 21-101, AMCSUP CL-6, *C-5 Debriefing Checklist*, will be used to correctly identify discrepancies.

1.7.5.3.4. Ensure all in-flight discrepancies entered on AFTO 781A are complete and concise.

1.7.5.3.5. Document appropriate blocks on AMC 278. Aircrew discrepancies entered on AFTO 781A will be issued debrief job control numbers. The job control numbers will be transcribed to the AMC 278. In the event that numerous entries are recorded, the debrief representative may make a copy of all aircrew reported discrepancies and attach to the AMC 278 prior to obtaining aircraft commander's signature.

1.7.5.3.6. These debriefing procedures may be altered during contingency operations to ensure on time departure of turning aircraft.

1.7.5.4. Maintenance Personnel.

1.7.5.4.1. The AMXS or MXS production superintendent or flight line expediter will attend aircrew debrief. The crew chief and aircraft specialists will attend when required.

1.7.5.4.2. The production superintendent, flight line expeditor will ensure that both MADAR PC- cards are submitted for processing.

1.7.5.4.3. AMXS or MXS debrief representative will ensure correct symbols are assigned to each discrepancy and provide MOC/Debrief with valid work unit code for each discrepancy.

1.7.5.4.4. AMXS or MXS production superintendent will provide the aircraft maintenance status, pacing job control number and estimated time in commission to MOC/ Debrief.

1.7.5.4.5. The Pro- Super and/or expeditor are responsible for turning in MADAR cards for aircraft that are scheduled and not used.

1.7.6. Post Debrief/MOC Procedures.

1.7.6.1. Input all debrief discrepancies to include discrepancies discovered at other locations in to program 9050. When required a Basic Post Flight package or Thru flight package will be loaded as directed by the AMXS Production Superintendent or Flight Line Expediter.

1.7.6.2. Input flight times from AFTO 781 into MIS data base program 9020, *Detailed Aircraft Flying Hour input.*

1.7.6.3. Review AF 4097 and enter gear cycles into MIS program 9020.

1.7.6.4. Audit the input flying hours using MIS program 8038, *Aircraft Flight Status Data*, reports.

1.7.6.5. Submit original AF 4097 to PS&D.

1.7.6.6. Submit copies of AFTO 781, 8038 reports, and Aircraft Flying Hours Report to the 433 Current Operations (C/Ops).

1.7.6.7. Submit original AFTO 781 to the respective squadron Aviation Resource Manager for input.

1.7.6.8. In the event of missing MADAR cards, a debrief discrepancy and a lost tool report will be initiated.

1.8. Flying Hour Accounting.

1.8.1. Flying Hour Data Collection and Entry.

1.8.1.1. After the completion of each sortie generation, the AC will provide accurate and completed AFTO 781 and AF 4097 to the MOC debriefer. Instructions for completing AF 4097 are prescribed in AFI 11-2C-5V3, *C-5 Operations Procedures*, Chapter 12.

1.8.1.2. The MOC debriefer will review the AFTO 781 and AF 4097 for completeness and identify any missing information or errors for immediate correction. Ensure that the pilot has initialed the AFTO 781 in the appropriated block (Block 38). Deliver both forms to the MOC.

1.8.1.3. MOC will enter the AFTO 781 data into the MIS and deliver the AF 4097 to PS&D. Reconcile AFTO 781 data against MIS program report(s). Deliver the original AFTO 781 to the applicable SARM within 1 duty day or 24 hours of mission return to home station. C/Ops maintains a drop box in CP for debriefs that occur after normal business hours.

1.8.1.4. PS&D will enter the AF 4097 data into the MIS. Use batch program 67034, *Flying Hour Data Audit List*, to aid in validating mission numbers and flight times. Also print a MIS 8038 (Option "Y"), *Aircraft Flight Status Data*, to check the dates, mission numbers, flight times and landings. Coordinate with C/Ops and MOC to correct any errors found. Original AF 4097s must be mailed to Tinker weekly.

1.8.2. Flying Hour Reconciliation.

1.8.2.1. The SARM office(s) will validate all flying hours with training data prior to manual input or interface push to the Aviation Resource Management System (ARMS) during its post mission review. Reference AFI 11-421, *Aviation Resource Management*, for more information. When differences occur in flying hour total time, the SARM(s) will contact Current Operations, PS&D and/or MOC, as required, for confirmation and correction.

1.8.2.2. The SARM office(s) will file the original AFTO 781, after input to ARMS database, with the Host Aviation Resource Management (HARM) office.

1.8.2.3. The 433 Aerospace Vehicle Utilization Monitor (AVUM) resides in the 433 OSS/OSO office and is the OPR for tracking reconciliation of total flying hours and sortie count and cumulative totals for the day/week/month to date.

1.8.2.3.1. Daily Reconciliation – The Aerospace Vehicle Distribution Officer (AVDO) resides in PS&D and collects the daily Aircraft Utilization Report (AUR) from Maintenance Data Systems Analysis (MDSA) each day to forward to 433 OSS/OSO and MOC for review, signature and if necessary, correction. PS&D will coordinate with MOC and AVUM for corrections as needed.

1.8.2.3.2. Monthly Reconciliation - The AVUM will compute total flying hours accrued against the assigned aircraft mission(s) from the completed AFTO 781(s) and compare with the MIS reports. NTL the 4th of each month, the AVDO forwards an aircraft utilization summary (use MIS program 9025B, *Aircraft Utilization Data*) to 433 OSS/OSO) for comparison. Additionally, MDSA provides batch monthly flying hour data summaries to the AVUM upon request.

Chapter 2

MANAGING MAINTENANCE DOCUMENTATION

2.1. Aircraft Document Reviews (ADR).

2.1.1. Responsibilities. The OPR for ADRs and other inspection meeting requirements is the PS&D Office.

2.1.2. Scheduling of ADRs and inspection meetings associated with aircraft inspections and transfer meetings will be included in the published Weekly Maintenance and Flying Plan and briefed at the daily production meetings.

2.1.3. Each assigned aircraft will have a document review at least every sixty days and prior to deployment or transfer. Meetings will also be held Pre and Post Isochronal (ISO) inspection, Prior to Programmed Depot Maintenance (PDM), Un-programmed Depot Maintenance (UDM), Contract Field Team (CFT), and in conjunction with aircraft acceptance. Whenever possible, schedule inspection and transfer meetings in conjunction with 60 day ADRs.

2.1.4. Document all meetings on AF Form 2410, *Inspection/TCTO Planning Checklist*, and retain on file until the next records review.

2.1.5. Production Supervisors must ensure required personnel attend ADRs and inspection meetings.

2.2. ADR Procedures.

2.2.1. The assigned aircraft Crew Chief (CC) as well as representatives from DMS, PS&D and EM are required to attend ADRs.

2.2.2. The CC will initiate ADRs for aircraft on extended deployment (more than 30 days). For units with MIS access, the owning PS&D will track and schedule ADRs, pre and post dock meetings and acceptance meetings. Teleconferencing will be used to the extent possible to facilitate meetings. Units without MIS access must contact the owning unit to obtain the necessary documentation & support to conduct required meetings.

2.2.3. PS&D will:

2.2.3.1. Schedule and chair meetings.

2.2.3.2. Review/verify all AFTO 781 series forms entries, including scheduled maintenance, deferred discrepancies, TCTOs, One Time Inspections (OTIs), SIs and TCIs for compliance.

2.2.3.3. Review/verify Home Station Check, ISO and UDM/PDM input data.

2.2.3.4. Review/verify engine and airframe hours.

2.2.3.5. Ensure all current engineering dispositions are maintained in the aircraft forms binder.

2.2.4. AMXS will:

2.2.4.1. At the scheduled meeting time, the CC will proceed to the designated meeting location with the aircraft forms binder, including the aircraft's air and fuel cards.

2.2.4.2. The CC will ensure that the aircraft forms have been transcribed within the last 24 hours.

2.2.5. EM will review/verify current engine hours, TCTOs and TCIs for compliance.

2.2.6. DMS will review MIS program 8044, *Open Document Numbers,* and compare it against the aircraft forms for accuracy.

2.3. Pre and Post ISO Docks.

2.3.1. 45 days prior to ISO input PS&D generates and submits the first AF 2410 consolidating maintenance requirements for the regional ISO activity.

2.3.2. PS&D coordinates Pre-Dock teleconferences 7 and 30 days prior to ISO input.

2.3.3. Representatives from PS&D, EM, DMS, Squadron Production Supervisors (Pro-Supers), the CC and all back shops (or their respective Flight Chiefs) with open discrepancies must attend the Pre-Dock meetings.

2.3.4. An AFTO Form 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*, review will be accomplished at the Pre-Docks.

2.3.5. AMXS will provide a thorough turn-over of open discrepancies to include any in-progress work documented on locally developed worksheet, *C5 System Form 4 Troubleshooting Logs*. When possible, the specialist familiar with the Form4 discrepancy will attend.

2.3.6. The CC and an DMS representative will ensure that all discrepancies awaiting parts have valid document numbers against them. Coordinate transfer of parts and document numbers with the unit accomplishing the ISO.

2.3.7. Post-Dock. Representatives from PS&D, DMS, Pro-Supers, the CC, and all back shops (or their respective Flight Chief) with open discrepancies must attend the Post-Dock meetings.

2.4. Aircraft Transfers. Personnel required for PDM/UDM and transfer meetings include the CC, AMXS Pro-Super, MXS Pro-Super, Fabrication Flight Chief, EM, DMS and PS&D. Additionally, the acceptance inspection team (as appointed by the Production Supervisor) will attend both the Pre and Post acceptance inspection meetings. Refer to MXGI 21-127, *Aircraft Acceptance Inspections*, for more info on aircraft acceptance.

2.4.1. Pre-PDM/UDM.

2.4.1.1. 60 days prior to PDM input PS&D will schedule a meeting to validate AFTO Form 103, *Aircraft/Missile Condition Data*, requests. Required attendees are those listed in paragraph 2.4. and Quality Assurance (QA). Review all discrepancies in the aircraft forms including delayed discrepancies, awaiting action TCTOs, OTIs, TCIs, SIs and engineering dispositions to validate AFTO103 items. Requests must be submitted to the Major Command NTL 55 days prior to input.

2.4.1.2. Approximately 30 days prior to transfer out PS&D will host a teleconference to review maintenance requirements and the approved AFTO 103 items. Required attendees are listed in **paragraph 2.4**.

2.4.1.3. 7 days prior to PDM, UDM, or other aircraft transfer, PS&D will schedule a pre-dock for aircraft transfer. Review all SI, TCI, TCTO and AFTO 781A and K discrepancies. Also validate supply requirements, document numbers and Tail Number Bin items. Required attendees are PS&D, CC, Sortie Support Flight, back shops with open discrepancies, DMS, EM and Pro-Supers.

2.4.1.4. NTL 1 day prior to transfer PS&D must schedule a post-dock transfer inspection meeting to ensure all required actions are complete and that an ADR is accomplished.

2.4.2. Post PDM/UDM and Transfers.

2.4.2.1. An acceptance inspection planning meeting will be accomplished upon transfer of aircraft to the 433d and will include:

2.4.2.1.1. Review of aircraft maintenance documents to ensure completion of required TCTOs, OTIs, SIs, TCIs, and ensure the accomplishment of the contracted work in accordance with MXGI 21-127.

2.4.2.1.2. Required attendees for PDM return are PS&D, Sortie Support Flight, the CC, Acceptance Team Chief (appointed by the Pro-Super), Fabrication Flight, Electro-environmental shop (ELEN), Avionics and EM. UDM and CFT returns may require fewer attendees depending on the nature and scope of the completed modification/repair.

2.4.3. A post-dock for acceptance inspection meeting will be conducted when required to compile inspection findings and any discrepancies for deficiency reporting.

2.5. Managing Historical Documents and Inspections.

2.5.1. Aircraft Jacket Files.

2.5.1.1. Aircraft Jacket files are centralized in PS&D. The master jacket and instructions are filed in front of the first jacket. All jackets must conform to the structure of the master jacket.

2.5.1.2. Annual Jacket Reviews. PS&D will inspect all jackets using a locally developed checklist at least annually. Inspection will include any sub-located historical documents in the using work centers (e.g. Aircraft X-rays, Weight and Balance binders, etc.). Note: All historical documents maintained in the MIS (e.g. AFTO Forms 244, *Industrial Support Equipment Record*, Corrosion Control Logs, etc.) are considered centralized for the purposes of this instruction.

2.5.1.3. Missing Forms Policy. PS&D must maintain the last 7 sets of transcribed aircraft forms in each aircraft jacket. When forms sets are missing or incomplete:

2.5.1.3.1. Send the locally developed missing forms letter along with any incomplete forms sets to the Pro-Super.

2.5.1.3.2. Suspense the letter for 5 working days. Forms not found must be elevated to Maintenance Supervision. For more instructions on transcribed forms maintenance see the locally developed PS&D checklist.

2.5.2. Maintenance of AFTO Forms 95, *Significant Historical Data*.

2.5.2.1. All work centers maintaining AFTO 95s must:

2.5.2.1.1. Ensure AFTO 95s are reviewed and documented in accordance with Technical Order (TO) 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policy and Procedures*, Chapter 9.

2.5.2.1.2. Annotate all significant required history events in the MIS.

2.5.2.1.3. Initiate a history event in the MIS upon receipt of any new equipment requiring an AFTO 95. When an AFTO 95 is initially automated, an entry will be made on the manual AFTO 95 indicating the date and location of the event. Review manual AFTO 95 to ensure all entries are included in the automated version. Print the automated AFTO 95 and attach it to the manual form for filing in the equipment record.

2.5.2.2. PS&D procedures. Annually (in conjunction with the annual jacket file review) and upon completion of major maintenance (e.g. UDM, PDM, CFT) perform the following:

2.5.2.2.1. Review all engineering dispositions (202 and 107 file) for required historical entries. Also review any manual AFTO 95s to ensure entries have been entered in the MIS.

2.5.2.2.2. When required entries are found, review the applicable MIS program (9035 for AFTO 95 entries, 9088 and 9188 for TCI & SI entries) to ensure the MIS entry has been made. If a required entry is not in the MIS, use the applicable program to enter the data.

2.5.2.2.3. In black ink or pencil write “MIS entry verified” or “MIS entry completed” (as applicable) the date and mininum signature (first initial & last name) on the original document. Print out and staple the corresponding MIS product to the document.

2.5.2.2.4. Ensure that engineering disposition numbers are referenced on any SIs and TCIs that are entered into 9088/9188 and that the matrix is updated as necessary.

2.5.3. Decentralized Scheduling Activities. Aerospace Ground Equipment (AGE) and Engine Management (EM) scheduling processes and documents must be reviewed semi-annually by PS&D personnel. Use locally developed checklist for the review. Route any findings to the applicable scheduling activity through their Squadron Supervision using an AF 1768, SSS. File the completed SSS and answers to findings in the PS&D files.

2.6. Configuration Management, TCI, SI and Serially Controlled Items.

2.6.1. Responsibilities.

2.6.1.1. PS&D.

2.6.1.1.1. Manage all aircraft SI, TCI and Serially Controlled items. Monitor the SI and TCI subsystem in the MIS.

2.6.1.1.2. Schedule and chair a monthly TCI reconciliation meeting.

2.6.1.1.3. Create Job Standards as necessary for serial number verifications at acceptance inspections.

2.6.1.1.4. Maintain serially controlled item worksheets and ensure ISO coordinators and/or Dock Chiefs receive worksheets at Pre-dock to verify missing serial numbers during the inspection.

2.6.1.1.5. Act as liaison to item managers and other PS&D offices as necessary.

2.6.1.1.6. Aid maintenance personnel in updating the MIS as necessary.

2.6.1.1.7. Create delayed discrepancies in the MIS when missing serial numbers are identified.

2.6.1.2. Section Supervisors and Pro-Supers.

2.6.1.2.1. Provide strict oversight for personnel responsible for performing maintenance on serialized components. Ensure personnel properly document component changes in the MIS and notify PS&D when changes occur.

2.6.1.2.2. When removing components to facilitate maintenance, ensure serially controlled components are reinstalled on the same aircraft and position from which they are removed. When it is necessary to install serially controlled components in different positions, carefully document the changes to include, part number, serial number and lot number (when applicable). Ensure that PS&D is notified to update the records.

2.6.1.2.3. Notify QA if the removal/installation of these items affects the aircraft's weight and balance.

2.6.1.2.4. Ensure that documentation is input into the MIS as soon as possible, but no later than the end of the current duty day.

2.6.1.2.5. Incorporate collection and correction of identified missing serial numbers into scheduled and unscheduled maintenance whenever possible and practical.

2.6.1.3. Engine Management (EM).

2.6.1.3.1. Manage all SI, TCI and Serially Controlled items on engines and engine components.

2.6.1.3.2. Participate in the monthly TCI/TCTO reconciliation meeting chaired by PS&D.

2.6.1.3.3. Validate data entered into the MIS.

2.6.1.4. ELEN has the primary responsibility for the handling, storage and replacement of squibs. The ELEN Shop Chief will ensure proper procedures and documentation are accomplished on all squib maintenance. See MXGI 91-2, *Handling and Storing Munitions*, for procedures regarding handling and transportation of Squibs.

2.6.1.5. QA.

2.6.1.5.1. Assist PS&D and the Munitions Section with the Configuration Management Program.

2.6.1.5.2. Update the aircraft weight and balance system (AWBS) as required.

2.6.2. Procedures.

2.6.2.1. PS&D will chair a monthly TCI/TCTO reconciliation meeting. This is scheduled the last week of the month and is held in conjunction with the TCTO reconciliation meeting. Required attendees are PS&D, EM, DMS, Pro-Supers, ELEN, AGE, QA and all shops with active TCTOs.

2.6.2.2. PS&D will provide serial number verification worksheets to the Regional ISO Dock Chief prior to each ISO. Collect the completed work sheet at the Post Dock and correct any discrepancies in the MIS.

2.6.2.3. Squib serial numbers must be verified during aircraft acceptance inspections. PS&D will provide the acceptance team chief with a worksheet at the acceptance planning meeting and collect completed worksheets at the post acceptance meeting.

2.6.2.4. The Pro-Supers and the Cannibalization Authority must coordinate with PS&D to ensure appropriate records are updated when cannibalizing TCI and serialized components.

2.7. TCTO Management.

2.7.1. PS&D is the OPR for the unit TCTO Program and will:

2.7.1.1. Contact all personnel/shops that are required for the TCTO/OTI, schedule and chair the planning meetings. The planning meetings will establish:

2.7.1.1.1. By whom the TCTO/OTI will be accomplished.

2.7.1.1.2. The date the TCTO/OTI will start and the estimated completion date.

2.7.1.1.3. The equipment and parts/kits required.

2.7.1.1.4. Ensure, through Decentralized Material Support, the order of any necessary parts/kits.

2.7.1.1.5. Establish the sequence in which the TCTO/OTI is to be accomplished.

2.7.1.2. Maintain completion status of all assigned aircraft and equipment.

2.7.1.3. Request assistance from the QA office to help in resolving any problems that may arise.

2.7.1.4. Establish a master TCTO folder for each TCTO or OTI, to include at a minimum:

2.7.1.4.1. A completed copy of the AF 2410.

2.7.1.4.2. A copy of MIS program 8023, *TCTO Status Report*, (updated at least monthly until the TCTO is completed).

2.7.1.4.3. A copy of the TCTO and any supplements.

2.7.1.4.4. Supply TCTO reconciliation listing when tools/kits/parts are required by the TCTO.

2.7.1.5. Provide assistance and oversight to decentralized scheduling activities that schedule and manage TCTOs.

2.7.2. Decentralized scheduling activities folders must mirror the master.

2.7.3. QA Responsibilities.

2.7.3.1. The QA Technical Order Distribution Office (TODO) will determine the applicability of all newly received TCTOs/OTIs, forward copies of applicable TCTOs to the Weight and Balance Manager and be present at the planning meetings (if available).

2.7.3.2. Provide a cover letter requesting the number of items in supply, including War Reserve Material (WRM), affected by the TCTO.

2.7.3.3. Publish all local MXG directed OTIs in accordance with AFI 21-101 and TO 00-20-1, including MXG/CC or Deputy Commander (CD) signature.

2.7.3.4. Maintain a file for all TCTOs and OTIs.

2.7.3.5. Conduct a quality verification inspection on the first instance of each TCTO or OTI.

2.8. Freezing and Consolidating Aircraft Records. In the event of an aircraft accident, safety investigation, or impoundment, contact MDSA (or MOC after day shift hours) to lock out the MIS. PS&D will secure transcribed forms from the jacket file for release only to QA, the impoundment official, or the safety investigator. See MXGI 21-118, *Aircraft Impoundment Procedures,* for further instructions regarding aircraft impoundments.

2.9. Hangar Queen Reporting.

2.9.1. PS&D Responsibilities:

2.9.1.1. Report Hangar Queen aircraft status by tail number via e-mail to: Headquarters AFRC/ A4M/A4R and 4AF/A4M/A4R.

2.9.1.2. PS&D will give the appointed hangar queen manager a locally developed worksheet that includes all required elements as outlined in AFI 21-101 AFRC S-1, Chapter 14. Use the completed worksheet to report status no later than the 5th day of the month.

2.9.1.3. Ensure a complete aircraft document review is accomplished prior to first flight out of hangar queen status.

2.9.2. Hangar Queen Manager appointed for Category 2 and Category 3 aircraft, duties will include:

2.9.2.1. Approval of any further cannibalization actions and ensure compliance with 433 AWI 21-111, *Cannibalization Procedures*.

2.9.2.2. Brief maintenance and supply status at the maintenance production meetings.

2.9.2.3. Provide completed hangar queen worksheet (see attachment 1) to PS&D, NLT the 3rd day of each month.

2.9.2.4. Coordinate with QA, Pro Supers and the MXG/CC to determine the need for a Functional Check Flight and/or Operational Check Flight.

2.9.3. QA must review aircraft forms prior to 1st flight out of hangar queen status.

2.10. Manual Procedures in the Event that the MIS is Unavailable.

2.10.1. MDSA will ensure that personnel are kept informed of the status of all MIS support systems.

2.10.2. Any individual discovering that the MIS is inoperative will contact MDSA at (210) 925-7860 or (210) 977-5794 and inquire whether the problem is local or system wide. MDSA office will inform users of the estimated time when the system will be functioning.

2.10.3. MDSA will, in turn, notify all maintenance activities.

2.10.4. PS&D will use the latest published maintenance plans and histories to plan and monitor flying and maintenance schedules. Telephone, radios and runners will be used to maintain contact with CP, C/Ops, MOC, and Pro-Supers. Additionally, use the locally developed contingency binder to document all actions that require a MIS entry. Update the MIS when it becomes available.

2.10.5. EM.

2.10.5.1. The Engine Manager will ensure that an adequate supply of AF Form 1534, *Comprehensive Engine Management (CEMS) Central Data Base (CDB) Report***,** and AF Form 1559, *D042 Time Compliance Technical Order (TCTO) Status Report***,** are kept on hand and will document these forms as required. The current data on the AF Form 1534 and AF Form 1559 will be input into the MIS upon system recovery.

2.10.5.2. The Propulsion Flight Chief will ensure that engine status reporting procedures are followed IAW TO 00-25-254-1, *Comprehensive Engine Management System Engine Configuration, Status and TCTO Reporting Procedures* and the 00-20 series TOs.

2.10.6. Personnel using the AFTO Forms 244, *Industrial Support Equipment Record,* and AFTO 245 *Industrial/Support Equipment Record Continuation Sheet*, for support equipment documentation will manually document inspection and maintenance data according to procedures outlined in TO 00-20-1.

2.10.7. All section supervisors are responsible for developing processes (e.g. keeping current forms on hand and logbooks as necessary) to maintain hard copy data and process integrity until the MIS is available for update.

2.10.8. Aircraft Forms.

2.10.8.1. Aircraft Maintenance Squadron (AMXS) flight chiefs will ensure that an adequate supply of AFTO 781 series forms and AFTO Forms 349, *Maintenance Data Collection Record,* or locally developed equivalent are kept on hand.

2.10.8.2. Crew chiefs and expediters will document and call in aircraft write-ups normally, however AFTO349 (or equivalent) will be completed manually and retained to input upon MIS availability.

2.10.8.3. Aircraft document reviews will be conducted using the latest MIS reports and the current aircraft forms binder.

2.10.9. MOC.

2.10.9.1. Will use each aircraft's program 9032D, *Maintenance Discrepancy List for MOC/Pre-Planning*, (commonly called 115s) printout to manually document jobs called in or closed out.

2.10.9.2. MOC may use a locally produced 115 continuation sheet for documentation of new and closed jobs if an extended down time occurs. Refer to MXGI 21-105, *Assignment of Job Control Numbers (JCNs)*, to assign JCNs if pre-printed 115s run out.

2.10.9.3. The manually documented 115s will be used to update the MIS upon system availability.

2.10.9.4. In lieu of MIS program 9018, *Aircraft Arrival and Departure Update Input*, MOC will use the locally developed worksheet, *Blocking in and Blocking out of Aircraft*, and update the MIS as it becomes available.

2.11. Major Maintenance Work Processing.

2.11.1. QA will coordinate with requesting work centers to submit requests for engineering disposition assistance. Work centers will use the worksheet **Attachment 2**, *Request for Engineering/Maintenance Assistance*, to ensure adequate data is captured for the request. See TO 00-25-107, *Maintenance Assistance*, for more instructions on 107 requests.

2.11.2. QA will notify PS&D via e-mail when engineering requests are submitted and completed. PS&D will ensure that the proper purpose possession codes are reported in the MIS as prescribed in AFI 21-103 AFRC Sup1, *Equipment Inventory, Status and Utilization Reporting*.

WILLIAM W. WHITTENBERGER, JR., Col, USAFR
Commander, 433d Airlift Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 11-2C-5V3, *C-5 Operations Procedures*, 24 February 2012

AFI 11-421, *Aviation Resource Management*, 10 April 2014

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 26 July 2010

AFI 21-101, AFRC Sup1, *Aircraft and Equipment Maintenance Management*, 13 January 2011

AFI 21-101, AMCSUP CL-6, *C-5 Debriefing Checklist*, 14 February 2011

AFI 21-103, AFRC Sup1, *Equipment Inventory, Status and Utilization Reporting*, 18 June 2013

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

AFRCI 21-165, *Aircraft Flying and Maintenance Scheduling Procedures*, 7 February 2011

433 AWI 21-111, *Cannibalization Procedures*, 25 June 2014

TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policy and Procedures*, 15 June 2013

TO 00-25-107, *Maintenance Assistance*, 15 August 2011

TO 00-25-254-1, *Comprehensive Engine Management System, Engine Configuration, Status and TCTO Reporting Procedures*, 1 October 2013

MXGI 21-105, *Assignment of Job Control Numbers (JCNs)*

MXGI 21-118, *Aircraft Impoundment Procedures*

MXGI 21-127, *Aircraft Acceptance Inspections*

MXGI 91-2, *Handling and Storing Munitions*

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 1534, *CEM CDB Report*

AF Form 1559, *D042 TCTO Status Report*

AF Form 2410, *Inspection/TCTO Planning Checklist*

AF Form 4097, *Aircraft Identification*

AF Form 664, *Aircraft Fuels Documentation Log*

AF Form 1768, *Staff Summary Sheet*

AF Form 2407, *Weekly/Daily Flying Schedule Coordination*

AFTO Form 95, *Significant Historical Data*

AFTO Form 103, *Aircraft/Missile Condition Data*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 245, *Industrial/Support Equipment Record Continuation Sheet*

AFTO Form 349, *Maintenance Data Collection Record*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance*

AFTO Form 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*

AMC Form 278, *Debrief and Recovery Plan*

Abbreviations and Acronyms

AC—Aircraft Commander

ADR—Aircraft Document Review

AGE—Aerospace Ground Equipment

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRCI—Air Force Reserve Command Instruction

AFRIMS—Air Force Records Information Management System

AFSC—Air Force Specialty Code

AFTO—Air Force Technical Order

AWBS—aircraft weight and balance system

AMC—Air Mobility Command

AMXS—Aircraft Maintenance Squadron

ARM—Aviation Resource Management

AS—Airlift Squadron

AUR—Aircraft Utilization Report

AVDO—Aerospace Vehicle Distribution Officer

AVUM—Aerospace Vehicle Utilization Manager

AW—Airlift Wing

AWI—Airlift Wing Instruction

CC—Crew Chief

CD—Deputy Commander

CDB—Central Data Base

CFT—Contract Field Team

CP—Command Post

CEMS—Comprehensive Engine Management

C/Ops—Current Operations

DMS—Decentralized Material Support

DSN—Defense Switched Network

EDD—Estimated Date

ELEN—Electro-environmental shop

EM—Engine Management

ETA—Estimated Time of Arrival

HARM—Host Aviation Resource Management

IAW—In Accordance With

ISO—Isochronal Inspection

JCN—Job Control Number

LRS—Logistics Readiness Squadron

NAF—Numbered Air Force

NSN—National Stock Number

MADAR—Malfunction Detection, Analysis, and Recording Equipment

MDS—Model Design Series

MDSA—Maintenance Data Systems Analysis

MIS—Maintenance Information System

MOC—Maintenance Operations Center

MOS—Maintenance Operations Squadron

MXG—Maintenance Group

MXG/CC—Maintenance Group Commander

MXOS—Plans, Scheduling and Documentation

MXS—Maintenance Squadron

NLT—Not Later Than

OG—Operations Group

OI—Operating Instruction

OPR—Office of Primary Responsibility

OSO—Current Operations

OSS—Operations Support Squadron

OTI—One Time Inspection

PDM—Programmed Depot Maintenance

PE—Periodic Inspection

POC—Point of Contact

Pro-Super—Production Supervisor

PS&D—Plans, Scheduling, and Documentation

QA—Quality Assurance

RDS—Records Disposition Schedule

TCI—Time Change Item

TCTO—Time Compliance Technical Order

TNMCS—Total Not Mission Capable Supply

TO—Technical Order

TODO—Technical Order Distribution Office

SARM—Squadron Aviation Resource Management

SI—Special Inspection

SOE—Sequence of Events

SSS—Staff Summary Sheet

UDM—Un-programmed Depot Maintenance

WOP—Wing Operational Plan

WRM—War Reserve Material

WUC—Work Unit Code

Attachment 2

EXAMPLE OF HANGAR QUEEN WORKSHEET

Table A2.1. EXAMPLE OF HANGAR QUEEN WORKSHEET.

HANGAR QUEEN WORKSHEET	
UNIT	
MDS	
TAIL NUMBER	
LAST DATE FLOWN	
REASON FOR HANGER QUEEN STATUS	
SUPPLY PACING ITEM	
TOTAL NOT MISSION CAPABLE SUPPLY (TNMCS) INFORMATION TO INCLUDE NOMENCLATURE, NATIONAL STOCK NUMBER (NSN) PART NUMBER, WORK UNIT CODE (WUC), ESTIMATED DATE (EDD) AND OFF STATION BASE REQUISITION	
ESTIMATED FLY DATE	
IDENTIFY ANY ASSISTANCE REQUIRED FROM NAF OR AFRC/A4M	
UNIT POINT OF CONTACT (POC)	
TELEPHONE NUMBER (DSN)	
PLAN OF RECOVERY	
Report to: CMSgt Jing Moy 4AF/A4M; SMSgt Tom Archuleta 4 AF/A4M	
Report NLT the 5th calendar day of the following month via e-mail	

Attachment 3

EXAMPLE OF TO 00-25-107 WORKSHEET FOR ENGINEERING/MAINTENANCE ASSISTANCE

Table A3.1. EXAMPLE OF TO 00-25-107 Worksheet for Engineering/Maintenance Assistance.

Requestor:
Rank/Grade:
Base:
Organization:
Command:
Office Symbol:
DSN:
Commercial:
Over-G:
MDS / Tail Number:
Location Of Aircraft:
Part Numbers:
Serial Numbers:
Stock Numbers:
Detailed Description of Discrepancy:
Maintenance Performed & Technical assistance Required:
T.O.'s:
Figures:
Index's:
Last ISO / next PDM / Transfers / Planned Deployments etc.: